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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/068,512	02/06/2002	Louise C. Sengupta	PARA 50243	1051
27512 7590 12/09/2003				
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EXAMINER				
LEE, BENNY T				
ART UNIT		PAPER NUMBER		
2817				

DATE MAILED: 12/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.



UNITED STATES DEPARTMENT OF COMMERCE
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HC

☒ This application has been examined ☒ Responsive to communication filed on 14 July 2003 ☐ This action is made final
A shortened statutory period for response to this action is set to expire Three (3) month(s) 80 days from the date of this letter.
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

- | | |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited by Examiner, PTO-692. | 2. <input type="checkbox"/> Notice re Patent Drawing, PTO-948. |
| 3. <input type="checkbox"/> Notice of Art Cited by Applicant, PTO-1449. | 4. <input type="checkbox"/> Notice of Informal Patent Application, Form PTO-152 |
| 5. <input type="checkbox"/> Information on How to Effect Drawing Changes, PTO-1474. | 6. <input type="checkbox"/> _____ |

Part II SUMMARY OF ACTION

1. ☒ Claims 1-9 are pending in the application.
Of the above, claims _____ are withdrawn from consideration.
2. ☐ Claims _____ have been cancelled.
3. ☐ Claims _____ are allowed.
4. ☒ Claims 1-9 are rejected.
5. ☐ Claims _____ are objected to.
6. ☐ Claims _____ are subject to restriction or election requirement.
7. ☐ This application has been filed with Informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.
8. ☐ Formal drawings are required in response to this Office action.
9. ☐ The corrected or substitute drawings have been received on _____ Under 37 C.F.R. 1.84 these drawings are ☐ acceptable; ☐ not acceptable (see explanation or Notice re Patent Drawing, PTO-948).
10. ☐ The proposed additional or substitute sheet(s) of drawings, filed on _____, has (have) been ☐ approved by the examiner; ☐ disapproved by the examiner (see explanation).
11. ☐ The proposed drawing correction, filed _____, has been ☐ approved; ☐ disapproved (see explanation).
12. ☐ Acknowledgement is made of the claim for priority under U.S.C. 119. The certified copy has ☐ been received ☐ not been received
☐ been filed in parent application, serial no. _____; filed on _____.
13. ☐ Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.
14. ☐ Other

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A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 14 July 2003 has been entered.

The disclosure is objected to because of the following informalities: Page 1, lines 1-4, note that the reference to earlier U. S. Patent applications must include references to the parent application S.N. 419047 and the provisional application 60/104503 and their corresponding filing dates as required under 37 CFR 1.78. Moreover, the patent information should be associated with the parent application such that it is not confusing. Appropriate correction is required.

Claims 1-9 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In claim 1, note that the "first and second ground planes" being "on opposite ends of said conductor" still does not appear to have been supported by the original specification and thus continues to be treated as "new matter".

Also, with respect to claims 1, 3, note that the added limitation of a "vertical multi-layered stack of rectangular slabs" does not appear to have support in the original specification relative to the "coplanar waveguide" embodiment (i.e. Fig. 9) and thus must be treated as "new matter".

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However, if applicants' disagree that the above cited limitations are not "new matter", then an appropriate explanation is required, including pointing out where explicit support for these limitation can be found in the original specification.

Claims 1-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, note that it is unclear whether a "coplanar line" is properly characterized by the invention, as currently recited. Note in particular that the body of claim 1 appears to define "a first rectangular slab, of a vertical multi-layered stack ..." and "a second rectangular slab, of a multi-layered stack ...", which appears to define the waveguide of Fig. 10 rather than the "co-planar waveguide" of Fig. 9. Furthermore, the coplanar waveguide arrangement of Fig. 9 can not be consistent with the "vertical multi-layered stack" which defines the waveguide as depicted in Fig. 10. There appears to some degree of confusion on applicants' part, as evident from the nature of the amendments, as to what is intended to be claimed. Note that the preamble of these claims recite a "co-planar waveguide" (i.e. the fig. 9 embodiment). It should be appreciated that a "co-planar waveguide" is not actually a "waveguide", in the classical sense (e.g. as embodied by applicants' Fig. 10), but rather is a co-planar --transmission line--, which is more akin to the "microstrip" embodiment of Fig. 8 than the "waveguide" of Fig. 10. In particular, note that in each of the "microstrip" (Fig. 8) & "co-planar waveguide" (Fig. 9) embodiments, the "rectangular slabs" defining a "multi-layered stack ..." are actually stacked --horizontally-- (i.e. adjacent to


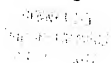
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each other along a horizontal direction) rather than "vertically". Note that the "plain meaning" of "vertical" would be stacking the slabs one on top of another (e.g. as depicted in the Fig. 10 embodiment) and could not be construed to define slabs arranged side-by side (as in the Figs. 8, 9 embodiments). Accordingly, with this expanded explanation, any confusion on applicants' part regarding the nature of the deficiencies set forth in this rejection should now have been clarified. Clarification is needed.

In claim 1, note that it is unclear whether the "conductor" being (only) "positioned adjacent to the first edge of the first and second rectangular slabs" is a proper characterization, especially if more than two slabs are present. Clarification is needed.

Claims 1-9 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benny Lee whose telephone number is (703) 308 4902.

B. Lee

December 5, 2003